

USSN 10/676,414

AMENDMENTS TO CLAIMS

1. (Previously presented) A method of fabricating a magnetic memory element, the method comprising forming a ferromagnetic data layer with a controlled nucleation site; the nucleation site being a divot in the data layer or a protrusion from the data layer.

2. (Original) The method of claim 1, wherein the nucleation site is not surrounded by a neighboring region of the data layer.

3. (Original) The method of claim 1, wherein the nucleation site has a lower switching threshold relative to a neighboring region of the data layer.

4. (Original) The method of claim 1, wherein the nucleation site is formed at an edge of the data layer.

5. (Original) The method of claim 1, wherein the nucleation site is formed at a corner of the data layer.

6. (Cancelled)

7. (Cancelled)

8. (Previously presented) The method of claim 1, wherein the data layer has at least two nucleation sites with a symmetric arrangement.

9. (Cancelled)

USSN 10/676,414

10. (Previously presented) ~~The method of claim 9, wherein~~ A method of fabricating a magnetic memory element, the method comprising forming a ferromagnetic data layer with a non-symmetric arrangement of controlled nucleation sites, the nucleation sites [have] having a uniform size and shape.

11. (Original) The method of claim 1, further comprising forming additional magnetic tunnel junction layers.

12. (Previously presented) A method of fabricating a data storage device, the method comprising forming an array of square or rectangular ferromagnetic data layers, each layer having first and second neighboring regions, the first regions having a lower switching threshold than the second regions and a substantially smaller size than the second regions, the first regions at the same location on the data layers across the array.

13. (Original) The method of claim 12, wherein the first regions are located at corners of the data layers.

14. (Original) The method of claim 12, wherein the first regions are located at edges of the data layers.

15. (Previously presented) The method of claim 12, wherein the first regions are either divots in the data layers or protrusion from the data layers.

16. (Original) The method of claim 12, wherein each data layer has more than one first region.

USSN 10/676,414

17. (Original) The method of claim 16, wherein each data layer has a symmetric arrangement of first regions.

18. (Original) The method of claim 16, wherein each data layer has a non-symmetric arrangement of first regions.

19. (Original) The method of claim 12, wherein the first regions have a uniform size and shape across the array.

20. (Original) The method of claim 12, wherein the first regions are formed during bit formation.

21. (Original) The method of claim 12, further comprising forming additional magnetic tunnel junction layers.

Claims 22-37 (Cancelled).